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2. (Amended) The composition of claim 1, wherein said nucleic acid is derivatized at the 5' or 3' end or at both the 5' and 3' ends with a reagent specific for binding to said protein thereby forming a complex between said reagent and said protein.

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4. (Amended) The composition of claim 2, wherein said reagent is biotin.

5. (Amended) The composition of claim 3, wherein said reagent is biotin that is covalently attached to a linker.

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7. (Amended) The composition of any one of claims 1-6, wherein said nucleic acid is DNA, 2'-fluoropyrimidine RNA or 2'-aminopyrimidine RNA.

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13. (Amended) A method for inhibiting degradation of a nucleic acid in the blood comprising attaching streptavidin or a variant thereof that retains biotin binding activity to said nucleic acid at the 5' or 3' end or at both the 5' and 3' ends.

14. (Amended) The method of claim 13, wherein said nucleic acid is derivatized with biotin.

15. (Amended) The method of claim 13 wherein said nucleic acid is DNA, 2'-fluoropyrimidine RNA or 2'-aminopyrimidine RNA.

Please add the following new claims:

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~~16. (New) A composition comprising:
a nucleic acid, that is derivatized at the 5' or 3' end or at
both the 5' and 3' ends with a protein having a half-life in
serum of greater than 1.5 hours, that binds to a blood clot or
to a protein that is a component of a mammalian blood clotting
cascade, wherein said nucleic acid is 2'-fluoropyrimidine RNA or
2'-aminopyrimidine RNA.~~

17. (New) The composition of claim 16 wherein the protein
is streptavidin or a variant thereof that retains biotin binding
activity.

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18. (New) The composition of claim 16 wherein the wherein
said nucleic acid is derivatized at the 5' or 3' end or at both
the 5' and 3' ends with a reagent specific for binding to said
protein thereby forming a complex between said reagent and said
protein.

19. (New) The composition of claim 18, further comprising
a linker that covalently attaches said reagent to said nucleic
acid.

20. (New) The composition of claim 19, wherein said
reagent is biotin that is covalently attached to said linker.

21. (New) The composition of claim 19, wherein said
reagent is biotin that is covalently attached to said linker and

said protein bound thereto is streptavidin or a variant of streptavidin that retains biotiny binding activity.

22. (New) The composition of claim 16, wherein said protein is covalently attached to said nucleic acid through a linker.

23. (New) The composition of claim 16, wherein said nucleic acid is less than 50 nucleotides long.

24. (New) The composition of claim 16, wherein said composition is further labeled with a radioactive label.

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25. (New) The composition of claim 24, wherein said radioactive label is ^{123}I , ^{124}I , ^{125}I , ^{131}I , $^{99\text{m}}\text{Tc}$, ^{186}Re , ^{188}Re , ^{64}Cu , ^{67}Cu , ^{212}Bi , ^{213}Bi , ^{67}Ga , ^{90}Y , ^{111}In , ^{18}F , ^3H , ^{14}C , ^{35}S or ^{32}P .

26. (New) A method for imaging blood clots *in vivo* comprising intravenously administering to a subject the composition of claim 24 and imaging the emission from said radioactive label.

27. (New) A method for preventing coagulation of blood in a subject requiring anticoagulation treatment comprising intravenously administering an amount of the composition of claim 16 effective to inhibit coagulation to said subject.